Summary of Preferred Coils/Inductors

Specification	Description	Inductance Range		Q (min) Range	FRL		Refer to Page No.
		Min	Max		Grade 1	Grade 2	
MIL-C-39010	Fixed, molded, radio frequency	0.1 µH	100.0 mH	75 - 18	S (Note 1)	R, P	05-2
MIL-C-83446	Chip, radio frequency, fixed or variable	0.01 µH	1,000 µH	75 - 19	Note 2		05-3

Notes:

1. There are currently no failure rate level S parts available. Failure rate level R or P parts may be used in Grade 1 applications if they meet the Class S requirements of MIL-STD-981.
2. Failure rate level is not applicable. These inductors may be used in Grade 2 applications. They may be used in Grade 1 applications if they meet the Class S requirements of MIL-STD-981 (Groups A and B testing).

MIL-C-39010 Coils
Fixed, Radio Frequency, Molded, Established Reliability

Part Number Explanation:

M39010	/XX	-X	XXX	X	X
Military Specification Number	Slash Sheet Number Specifies the inductor family	Class Maximum Operating Temperature A = +105°C B = +125°C F = +150°C	Inductance in microhenries (µH) The first two digits indicate significant figures, and the third digit indicates the number of zeros. For less than 10µH, two digits represent significant figures and the letter (R) represents the decimal point location.	Tolerance J = ±5% K = ±10% L = ±20%	Failure Rate Level % per 1000 hrs S = .001 R = .01 P = .1

Part Number (Note 1)	Inductance Range (µH)	Inductance Tolerance (±%)	Q Min Range	Self Resonant Frequency (MHz) Min	Rated dc Current (mA)	Core Type	Construction	Operating Temperature (°C)		FRL	
								Min	Max	Grade 1	Grade 2
M39010/01-AXXXXX	0.10 - 0.82	5, 10	40 - 50	180 – 250	370 - 1790	Phenolic core & iron sleeve	Shielded	-55	+105	S Note 2	P
M39010/02-AXXXXX	1.00 - 12.0		44 - 55	44 – 140	200 - 1070	Iron					
M39010/03-AXXXXX	15 - 100,000		18 - 60	0.11 – 49	11 - 315	Ferrite					
M39010/06-BXXXXX	0.15 - 4.7	5, 10, 20	33 - 50	90 – 525	260 - 2450	Phenolic	Unshielded	-55	+125		
M39010/07-AXXXXX	5.6 - 33	5, 10	45 - 75	19 –60	165 - 495	Iron	Unshielded	-55	+105		

Notes:

1. Parts covered by this specification may contain internal soldered connections that may reflow during installation. Special care must be exercised when soldering to prevent internal solder reflow.
2. There are currently no failure rate level S parts available. Level P parts may be used in Grade 1 applications if they meet the Class S requirements (Groups A and B) of MIL-STD-981, for radio frequency fixed coils (Family 13).

MIL-C-83446, Coils
Chip, Fixed or Variable, Radio Frequency

Part Number Explanations

M83446 — Military Specification Number

/XX — Slash Sheet Number Specifies the inductor family

-XX — Sequential Dash Number Specifies individual inductor characteristics

X — Termination Finish
A = Gold over nickel
B = Tin-lead over nickel
C = Tin plated
D = Platinum-gold
E = Palladium-silver
F = Tin-lead

Part Number	Inductance Range (μH)	Inductance Tolerance (±%)	Q Min Range	Self Resonant Frequency (MHz) Min	Rated dc Current (mA)	Configuration	Construction	Operating Temperature (°C)		Grade	
								Min	Max	1	2
M83446/04-XXX	0.010 - 27.0	10, 20	22 - 60	22.0 - 2700	120 - 1270	Fixed	Unshielded	-55	+125		(Note 1)
M83446/05-XXX	0.01 - 10.0	10	42 - 60	33.0 - 2000	87 - 750	Fixed					
M83446/07-XXX	0.016 - 76.1	__	19 - 55	5.0 - 1200	22 - 750	Variable					
M83446/09-XXX	0.015 - 150	__	22 - 55	3.0 - 1200	22 - 750	Variable					
M83446/10-XXX	0.01 - 1000.0	10	30 - 75	1.7 - 2000	25 - 1000	Fixed					

Notes:

1. These inductors may be used in Grade 1 applications only if they meet the Class S requirements of MIL-STD-981. They may be used "as is" for Grade 2 applications.

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